

Notice of Allowability

Application No.

10/690,472

Examiner

James Kish

Applicant(s)

SHACHAR, YEHOASHUA

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/8/07.
2. ☒ The allowed claim(s) is/are 1-24, 35-38 and 40-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Edward M. Mierader
EDWARD MIERADER
SPE 3768

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lee Henderson (Reg. No. 41,830) on May 11, 2007.

The application has been amended as follows:

35. An apparatus for controlling movement of a tool having a distal end to be inserted in a body, comprising;

a magnetic field source configured in a cluster-like arrangement on a C-Arm forming a magnetic circuit and generating a magnetic field, said magnetic field source comprising a first plurality of electromagnet coils provided substantially above the body and a second plurality of electromagnet coils provided substantially below the body;

a tool having a distal end responsive to said magnetic field;

a system controller for regulating electrical currents in said first plurality of electromagnet coils and said second plurality of electromagnet coils to produce a desired strength and orientation of said magnetic field to provide a position and

command input to control said tool distal end ~~to produce substantially simultaneous rotation and elevation of said distal end [;]~~ and
a radar system for measuring a position of said distal end; and
wherein said system controller compensates for a dynamic position of a wall of a heart chamber, thereby offsetting a response of said distal end to said magnetic field such that said distal end moves in substantial unison with said wall.

39. (Cancelled).

The following is an examiner's statement of reasons for allowance:

Independent Claim 1 provides a system controller that uses data from a radar system to differentiate between a catheter tip and body tissue via dielectric constants. This is implemented within a magnetically guided catheter system.

Independent Claim 35, as amended, provides a system controller which moves the tip of a catheter-type medical instrument in unison with the inner wall of a patient's heart. Mayer (US Patent No. 6,126,651) discusses a method for moving a suture tool in unison with the beating heart during open heart surgery, thereby canceling the motion of the heart with respect to the instrument's working end. However, this synchronization of the medical instrument with the beating heart is accomplished by pacing of the heart. Therefore, the heart is synchronized with the instrument, whereas Claim 35 of the

Art Unit: 3737

present invention compensates the distal end of the instrument based on motion of the heart wall.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Kish whose telephone number is 571-272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Edmund MANTOS KERRICK
ECON I MANTOS KERRICK
SPS 3768